

ABSTRACT OF THE DISCLOSURE

A rhenium lined niobium alloy tube for use as a clad tube for nuclear fuel in a nuclear reactor. The tube is produced by an electro deposit process. A graphite mandrel is placed in the electro deposit chamber as the cathode material. Refined rhenium stock is used as the anode material. The chamber is filled with the chloride electrolyte. The chamber is closed and the electrolyte bath is heated. Current and voltage applied across the anode and cathode cause the rhenium to be deposited on the mandrel. Refined niobium alloy is then used as the anode material and applied over the rhenium on the mandrel to a desired thickness. The part is removed from the chamber and ground to the desired outside diameter. The graphite mandrel is removed from the tube.